

XXIII.—*Contributions to the Ornithology of Siberia.*

By HENRY SEEBOHM.

[Continued from p. 184.]

(Plate IX.)

THE following notes on the birds of Siberia are of course extremely fragmentary. It is very seldom that the first expedition to a strange land is successful. The pioneer can do little more than discover the localities where future researches may be successfully made. My great mistake was that I wintered too far north. Had I waited the arrival of migratory birds at Yen-e-saïsk', instead of on the Arctic circle, my ornithological bag would have been increased fourfold in value. My list is almost as remarkable for what it omits as for what it includes. There is no doubt that the Merlin is common in the valley of the Yen-e-say'; and a little further south, most likely they would have been found chasing the Snow-Buntings. I was probably only just beyond the northern range of the Siberian Jay. On my return journey my time was necessarily very limited, and I was obliged to husband my ammunition. It was also the most unfavourable time of the whole year for making ornithological observations. During the breeding-season many birds forsake the neighbourhood of the villages and the cultivated land, and scatter themselves through the forests; and whilst they are moulting in the autumn, they seem to be fully aware that their powers of flight are limited, and that consequently they are an easy prey to their Raptorial enemies, and therefore they seem afraid to trust themselves on the wing. For the most part they are silent at this season, and skulk amongst the underwood, and it is only by chance that one can obtain a shot at them.

My plans were also considerably disarranged by the two shipwrecks, which did not form a part of my original programme; nevertheless I trust that the observations I was able to make may prove interesting to the student of ornithology.

† *HALIAETUS ALBICILLA* (Linn.).

The Sea-Eagle was common on the banks of the Yen-e-say',

becoming gradually rarer north of the Arctic circle. I had a fine male brought me which had been caught in a fox-trap.

+ARCHIBUTEO LAGOPUS (Gmel.).

I frequently saw the Rough-legged Buzzard on the wing near our winter-quarters, but failed to secure a specimen.

MILVUS MIGRANS (Bodd.).

I did not notice the Black Kite on the Yen-e-say' until we reached lat. 61° on the return journey. From this point it increased in abundance as we proceeded south and west, until in Tomsk it swarmed to as great an extent as it does in Constantinople. I did not shoot one of these birds.

+FALCO PEREGRINUS, Tunstall.

The Peregrine Falcon was first seen on the Koo-ray'-i-ka about the middle of May; and on the 25th of that month I secured a fine male. I once saw one of these birds dash into a flock of Snow-Buntings and bear one off in its talons. On the tundra they were breeding on the steep mud-cliffs on the banks of the Yen-e-say'. In lat. $69\frac{1}{2}^{\circ}$ I spent the night of the 13th-14th July on shore, shooting. I had no sooner landed than a couple of Peregrines showed me their nest by their loud cries. A glance at the cliffs decided the place where the nest ought to be—on the top of a steep mud promontory, which stretched out to a sharp ridge beyond and above the surrounding coast. I climbed up a valley in which the snow was still lying, and walked straight along the ridge to the little hollow where the four red eggs were placed upon a dozen small flakes of down. The eggs were considerably incubated.

+FALCO TINNUNCULUS, Linn.

I did not observe the Kestrel until I reached Yen-e-saisk' on my return journey, about the middle of August. The banks of the river to the south of the town are very flat; and a wide extent of meadow-land, which had recently been cut for hay, stretches southward for miles. This plain is surrounded by forests and intersected with numerous half-dried-up river-beds running parallel to the Yen-e-say'. In this

locality I found the Kestrel very abundant, and I frequently saw as many as a score on the wing together. It was also very common on the road-side as we drove through Kras-no-yarsk' to Tomsk, frequently alighting on the telegraph-posts.

ACCIPITER NISUS (Linn.).

The Sparrow-Hawk was one of the numerous enemies which the Snow-Buntings had to guard against as long as they stayed at our winter-quarters. I shot a male on the 1st of June, but had frequently seen this bird earlier.

CIRCUS CYANEUS (Linn.).

I saw the first Hen-Harrier on the 24th May, and one or more were almost daily seen as long as we remained at the Koo-ráy-i-ka. I shot two old males, one young male, and one female.

SYRNIUM URALENSE (Pall.).

We frequently saw a large Owl, which I have little doubt was of this species, sailing over the ship in the evenings whilst she was frozen up in winter-quarters; but it took care never to come within range of our guns.

+ ASIO ACCIPITRINUS (Pall.).

I twice saw the Short-eared Owl, once in lat. $66\frac{1}{2}^{\circ}$, and the other time in lat. 67° , but failed to secure a specimen.

+ NYCTEA SCANDIACA (Linn.).

I did not see the Snowy Owl on the wing, but had a very white specimen sent me in the flesh, which had been caught in a fox-trap. In lat. $70\frac{1}{2}^{\circ}$ the natives told me that this bird and the Willow-Grouse were the only species which wintered on the tundra.

PODOCES HENDERSONI, Hume.

This remarkable bird has not yet been recorded from political Siberia, but occurs almost on the frontiers, in the Eastern Palæarctic region. When I was passing through Omsk, Professor Sloftzoff presented me with a skin of this bird, which had been shot by a shepherd on the Chor'-na Ear'-tish, or Black Irtish, a river which flows through Lake Saisan and joins the Ear'-tish near Semipalatinsk. The shepherd described it as

very wild and difficult to approach, and said that he had chased it for a couple of days before he succeeded in securing it.

This specimen differs from Hume's description in having no spots on the head. Only a few of the feathers on the nape have slight indications of spots, almost like gold dust, at the tips. The plate of this bird in 'Lahore to Yarkand' (p. 244) is by no means a good one. The bar on the wing in my copy is coloured very pale blue, instead of pure white; and the conspicuous white feathers on the carpal joint are entirely concealed by the feathers of the breast.

PICOIDES TRIDACTYLUS (Linn.).

Picus tridactylus, Linn. Syst. Nat. i. p. 177 (1766).

Apternus crissoleucus, Bonap. Consp. Vol. Zyg. p. 9 (1854), ex Brandt, MS. in Mus. Petrop.

On my arrival at the wintering-place of the 'Thames' on the Arctic circle, I found the Three-toed Woodpecker common in the pine-forests on both banks of the Koo-ray'-i-ka, and was assured by the sailors that it had frequently been seen there throughout the winter. I brought home seven skins of this bird, six of which are representative examples of the form *P. crissoleucus* (Bp.), in which the underparts are much whiter than usual, the feathers on the belly and under tail-coverts being very slightly barred with black, and the outside tail-feathers also displaying more white than in the common form. The seventh skin agrees exactly with skins of the usual colour in my collection from the Petchora, Archangel, and Norway. It seems doubtful whether *P. crissoleucus* be an Eastern form of *P. tridactylus*, or merely a very old bird of the latter species. I may remark that in my series of skins the yellow on the head of the male is more developed in the paler-coloured birds than in those more profusely barred, favouring the idea that the difference is one of age.

SITTA EUROPEA, Linn.

Birds are very rare in the Siberian forests in winter. I have often silently threaded my way between the pines on snow-shoes for hours without hearing a note or seeing a feather. Then, perhaps, I should suddenly find myself in the

midst of a small party of Lapp-Tits. What few birds there are in these vast solitudes are very sociable. I generally found the Lapp-Tits accompanied by a pair of Pine-Grosbeaks, and occasionally by a pair of Nuthatches. The Nuthatch of the Yen-e-say' cannot be separated specifically from the common European form. It is undoubtedly a whiter form. The forehead is whiter, and the flanks are much less rufous. These paler forms are characteristic of Siberia, and have given rise to many new synonyms. Thus the Siberian form of *Picus tridactylus* has been called *P. crissoleucus* by Brandt, that of *Parus cinctus* *P. grisescens* by Dresser; and the pale form of *Sitta europæa* is the *S. uralensis* of Lichtenstein, the *S. asiatica* of Gould, and the *S. roseilia* of Bonaparte.

Dresser, in his 'Birds of Europe,' describes the legs of *S. europæa* as "plumbeous grey," in contradistinction to those of *S. cæsia*, which he describes as "pale dull brown." This does not at all agree with my observations in Siberia. The following note was written on the spot, with several fresh-killed birds of each of the two species referred to before me:—"The Nuthatch and the Titmouse which are found here are remarkably alike in their general distribution of colour, but differ considerably in the bill and feet. The feet of the Lapp-Titt are lead-colour, almost black. The bill of the Nuthatch is dark lead-colour above, and pale lead-colour below, almost the colour of the back." The feet, on the other hand, seem to have been painted with the same colouring matter as the under tail-coverts, and are pale chestnut-brown, with the soles a dirty yellow.

CUCULUS CANORUS, Linn.

I first heard the Cuckoo on the 5th June, and shot a male a few days later. I did not myself hear this bird further north than 67°, but was assured that it was not unfrequent at Doodin'-ka, in lat. 69°, nearly at the limit of forest-growth.

CUCULUS HIMALAYANUS, Vigors.

On the 15th of June a second species of Cuckoo presented himself, with an entirely different voice to our bird, a guttural and hollow-sounding *hoo*, not unlike the cry of the Hoopoe. This cry can be heard at a great distance, and is

generally repeated two or three times in succession. The bird was very wild, and I only succeeded in shooting two of them, both females—one an old bird in grey plumage, the other in the red plumage of the first year. This Cuckoo is almost an exact miniature of our bird, though the bill is slightly larger than that of the common European Cuckoo, and the barring on the underparts somewhat more distinct. If it had not been for the difference in voice, I should have scarcely supposed it to be more than a small race of our bird. The wings measure 7·6 in.

CUCULUS STRIATUS, Drapiez.

"*Cuculus striatus*, Drapiez," Jerdon, B. Ind. i. p. 328.

"*Cuculus optatus*, Gould," Radde, Amurl. ii. p. 135.

In Dresser's exhaustive article on the Common Cuckoo in the 'Birds of Europe,' of which he has kindly lent me the proof sheets, he refers to the nearly allied species. Two of these come into my Siberian region, *Cuculus optatus*, Gould apud Radde, and *Cuculus sparverioides*, Vigors apud Schrenck. Dresser identifies *C. optatus* with *C. himalayanus*. In this I cannot agree with him. After comparing Jerdon's excellent description of the note of the Himalayan species with Radde's minute account of the note of the Amoor bird, I think we may positively state that *C. optatus*, Gould apud Radde, is not *C. himalayanus*, Vigors apud Jerdon. The dimensions given by Radde are much too large for those of *C. himalayanus*, and agree best with those of *C. striatus*. After examining the cuckoos in the British Museum, I do not feel much doubt that Radde's bird was a specimen of *C. striatus*.

CUCULUS HYPERYTHRUS, Gould.

Von Schrenck gives an excellent figure of what he thinks, somewhat doubtfully, to be an immature male of *Cuculus sparverioides*, Vigors. I have two skins lately brought from Japan by Mr. Heywood Jones, which agree exactly with Schrenck's plate. They appear to me to be much too small for *C. sparverioides*; and I am inclined to identify both the Amoor and the Japan birds with the *Cuculus hyperythrus* of Gould, described by him in the P.Z.S. of 1856, p. 96, and figured in the 'Birds of Asia' (pt. 8).

CORVUS CORAX, Linn.

We occasionally noticed Ravens during almost the whole of our long sledge-journey; but at the Koo-ray'-i-ka they did not appear until the middle of May. After their arrival a day seldom passed without one or more being seen. They seemed to me to be less shy than Ravens usually are, and I had no difficulty in shooting half a dozen to skin. I was told, upon good authority, that in summer they are found as far north as the Russian fishermen go, about lat. 72°. I brought home eight skins of this bird with me. They varied in length of wing, from carpal joint, from 16·2 to 17·2 inches. The exposed portions of the bastard primary varied from 6 to 7 inches, and the distance from the end of the first primary to the end of the second primary from 3·3 to 4 inches, the bastard primary exceeding in length the end of the innermost secondaries.

CORVUS CORNIX, Linn.

During the whole of our long sledge-journey from Nishni Novgorod as far as Tomsk the Hooded Crow abounded on the road-sides; and in returning during the autumn I found it equally common on the banks of the various rivers which the steamer navigates between Tomsk and Tobolsk, and between the latter town and Tyu-main'. Indeed, so far as my observation goes, the whole of Russia and West Siberia may be described as a vast colony of Hooded Crows. East Siberia, on the other hand, is an equally vast colony of Carrion-Crows. From Kras-no-yarsk' to Yen-e-saisk' I saw nothing but the Carrion-Crow. Middendorff records the same on the Lay'-na, and eastwards to the sea of Okotsk; and southwards Prjevalsky (pronounced Psheval'sky) found it common in Mongolia. The distance between Tomsk and Kras-no-yarsk' is about 550 versts. As you travel eastwards from Tomsk for the first 200 versts the Hooded Crow only is to be seen. During the last 200 versts before reaching Kras-no-yarsk' the Carrion-Crow alone is found. In the intermediate 150 versts about one fourth of the Crows are thoroughbred Hoodies, one fourth are pure Carrion, and the remaining half are

hybrids of every stage; mulattoes, quadroons, octoroons, and so on *ad infinitum*. The line of demarcation between the two species may be roughly taken at the meridian of Calcutta, extending north of Yen-e-saisk' along the valley of the Yen-e-say', and south of that town along the watershed of the Obb and the Yen-e-say'. That this state of things is not of recent origin is proved by the fact that it is recorded by Middendorff, who remarked the presence of hybrid Crows at Yen-e-saisk' as long ago as 1844. Hybrids between *C. corone* and *C. cornix* occur occasionally in Scotland, on the Elbe, in Turkestan, and probably wherever both species occur. The fact that these hybrids present a series of every intermediate form between the two species is *primâ facie* evidence of their fertility. I succeeded, however, in getting *positive* evidence of this fact. On the 11th May, whilst the ground was still covered with six feet of snow, I found a pair of hybrid Crows in possession of a nest near the top of a pine tree. The nest contained one egg. On the 21st I climbed up to the nest again, and found it to contain five eggs. Two of these I took. On the 31st one egg was hatched, and the other two were chipped ready for hatching. On the 26th June I again climbed up to the nest, and found that one of the young birds had either died or flown. I took the other two and shot the female. She proved to be at least three parts Carrion-Crow. The feathers on the sides of the neck, and on the lower part of the breast and belly, are grey, with dark centres. I was unable to shoot the male; but I had on various occasions examined him through my binocular. He had more Hoodie blood in him than the female, having a very grey ring round the neck, and showing a good deal of grey on the breast and under the wings.

My total bag of Crows at the Ku-ray'-i-ka was three thoroughbred Hoodies (two males and a female), ten thoroughbred Carrions (nine males and one female), and fifteen hybrids (seven males and eight females). These figures, as far as they go, lead me to the conclusion that the female Carrion-Crows were all breeding, away in the woods, so that I rarely got a shot at one, whereas the female hybrids were most of

them barren, so that I was able to shoot as many of one sex as of the other. The following descriptions of these handsome birds may be worth recording :—

No. 161. The thoroughbred Hooded Crow of the Yen-e-say' has the wings, tail, head, throat (extending as far as the upper part of the breast), and thighs black. The rest of the body is ashy grey, slightly darker on the under tail-coverts. The upper tail-coverts begin grey, gradually become darker in the centre until they are only edged with grey, and finally become black as they join the tail. The axillaries are grey. The grey is much lighter than in Western-European birds, being almost as light as in *Corvus capellanus* of Scater, from Persia. The latter bird, however, has a longer bill.

No. 181 can only be called a Hooded Crow. The grey is a shade darker than in the preceding, and the shafts of the grey feathers on the back are very dark.

No. 162 has traces of black on the centres of the feathers across the back, but perhaps not more than one might expect to find in an accidental variety.

No. 128. The grey on the back is very similar to the preceding; but the upper and under tail-coverts are so much darker than usual that I have no hesitation in saying that this bird is not thoroughbred.

No. 164 has still more Carrion-Crow blood in its veins. All the feathers of the back are black, with grey edges. The axillaries and upper and under tail-coverts are nearly black. The breast and belly are much darker than usual.

No. 166 I take to be about half-bred. It differs from the latter bird in having more or less grey edgings to the feathers on the back between the shoulders, in having the feathers of the breast and belly broadly edged with grey, and in having more or less grey on the axillaries and under tail-coverts.

No. 141 is very similar to the preceding; but the grey edges to the feathers are less distinct.

Nos. 12, 143, 144, 146, 163, 165, 167, and 168 are evidently the commonest form (possibly octoroons). They are black, with a band of grey feathers (many of them with black

centres) extending round the neck, below the black head, across the shoulders, above the wings, and crossing the breast below the black throat.

Nos. 139 and 140 are nearly thoroughbred Carrion-Crows: but they show a little grey on each side of the neck, between the head and shoulders.

These hybrids average 13·2 inches in length of wing from carpal joint, varying from 12·3 to 13·8. The exposed portion of the first primary varies in length from 4·2 to 4·8 inches; and the distance from the end of the first primary to the end of the second primary averages 3·3, varying from 3·1 to 3·6.

My Yen-e-say' Carrion-Crows average 13·3 in length of wing from the carpal joint, varying from 12·7 to 14 inches. The exposed portion of the first primary varies in length from 4·3 to 5·2; and the distance from the end of the first primary to the end of the second primary averages 3·4, varying from 3 to 3·9.

CORVUS CORONE, Linn.

I was disappointed not to find any bird which I could identify with any of the eastern forms of this species, such as *C. orientalis* or *C. japonensis*. Both *C. corone* and *C. cornix* appear to winter south of lat. 60°. When we arrived at the Arctic circle we were surprised to find a pair of black Crows frequenting the banks of the Koo-ray'-i-ka. The sailors called them Ravens, and assured me that they had wintered near the ship. I succeeded in shooting the male; but, with the exception that he is slightly larger than any other Carrion-Crow which I shot, I cannot find any point of difference. He measures 14 inches in length of wing. The exposed portion of the bastard primary is 4·5; and the distance from the end of the first primary to the end of the second primary is 3·9. The end of the bastard primary falls considerably short of the end of the innermost secondaries.

After leaving the Arctic circle both this and the preceding species rapidly became rarer. We saw the last Hooded Crow in lat. 69°, and the last Carrion-Crow in 69½°, about the limit of forest-growth.

CORVUS FRUGILEGUS, Linn.

As we sledged over the snow in March and April from Nishni Novgorod to Yen-e-saisk', we never by any chance saw a Rook amongst the Magpies, Ravens, Crows, or Jackdaws on the road-side. Nor did I meet with this bird within the Arctic circle; but I was informed, upon very good authority, that a pair had once been seen two stations south of Vareshin'-sky, about lat. $68\frac{1}{2}^{\circ}$. On the return journey I kept a sharp look-out for the Rook, but did not see it until we were threading the labyrinth of the Toor'-a, a little to the east of Tyu-main'. Here large flocks of Rooks were feeding on the banks of the river.

CORVUS MONEDULA, Linn.

Jackdaws were common on the road-sides and in the villages through which we sledged as far as Tomsk, but became gradually rarer as we neared Kras-no-yarsk', and disappeared altogether at Yen-e-saisk'. Mr. Boiling told me that a stray bird of this species was occasionally seen at the latter town, but that he had not seen any further north.

NUCIFRAGA CARYOCATACTES (Linn.).

As we sledged down the Yen-e-say' in April we first saw the Nutcracker in lat. 64° ; and from that time we rarely missed seeing these birds at the different stations where we stopped to change horses. When we reached the 'Thames' we found this bird quite common and remarkably tame. At one time I counted as many as eight in one tree together. They are wonderfully sociable birds. Whilst the sailors were working at the ship, cutting away the ice all round her, there were frequently two or three Nutcrackers in different parts of the rigging, apparently watching the operation with great interest. They seem to be well aware of the fact that offal and scraps of food of all kinds are always to be found in winter near the habitations of man. Their tameness was quite absurd. Sometimes the Ost-yak children shot one with a bow and arrow; and occasionally one was caught by the dogs. On the bushes round the house they allowed us to approach within four or five feet of them, and when disturbed moved to the

nearest tree with a peculiar slow undulating flight. I carefully preserved them, and fed them with the bodies of the birds I skinned, as I was anxious to secure a good series of their eggs. They treated me, however, in a most ungrateful manner. They continued to be abundant until about the 7th of June, when the snow was pretty well melted from the ground. They then vanished altogether, and, with the exception of a couple of birds I picked up later, in full moult, I saw no more of them until they reappeared in flocks at various stations on the return journey. I offered considerable sums for a nest containing eggs; but both the Russian peasants and the natives informed me that they had never heard of any one who had seen the nest of a "Ve-roff'-ky," as they call this bird. They doubtless retire into the recesses of the forest to breed.

PICA RUSTICA, Scop.

Magpies were very common as far as Yen-e-saisk', but disappeared further north, at about lat. 60° . I did not see any during the summer within the Arctic circle; but Mr. Ulemann, an exile from West Poland, and a very intelligent observer of birds, assured me that he saw a pair every year at Vareshin'-sky, in lat. 69° , and had occasionally seen one as far north as Doo-dink'-a, in lat. $69\frac{1}{2}^{\circ}$.

† STURNUS VULGARIS, Linn.

I did not observe the Starling until we had almost reached Yen-e-saisk' on the return journey. At that town it was extremely abundant, for the most part in large flocks.

LANIUS MAJOR, Pall.

This Shrike was very common on the roadsides as we drove from Yen-e-saisk' to Tomsk. It was very fond of perching on the telegraph-wires. It differs from *L. excubitor* in only showing one white bar across the wings. The white bases to the primaries, from the second to the ninth inclusive, extend for about half an inch beyond the wing-coverts; whilst in the secondaries the white bases are entirely concealed by the wing-coverts, or are absent altogether. Russow, at the St. Petersburg Museum, told me that this is the common eastern

form, that *L. excubitor* breeds near St. Petersburg, whilst *L. major* only passes through on emigration. It winters in Asia Minor. It does not appear to be a very clearly differentiated species. I have a skin from Asia Minor with the basal half of the eleventh quill white, whilst the tenth, twelfth, and succeeding quills scarcely show a trace of white at the base; and, curiously enough, this is the same in both wings. Birds like these may be intermediate forms; or, after my experience of the Crow, I should not be surprised to find that on the boundary line of their geographical distribution they occasionally, if not habitually, intermarry.

PASSER DOMESTICUS (Linn.).

The common Sparrow abounded in all the towns and villages through which we sledged as far as Yen-e-saisk', and disappeared about lat. 60°. On the 16th of June a solitary pair appeared at the Koo-ray'-i-ka, the only occasion on which I met with this bird within the Arctic circle.

PASSER MONTANUS (Linn.).

The only place between Nishni Novgorod and Yen-e-saisk' where I observed the Tree-Sparrow was at a little village about forty miles west of Kasan. In Yen-e-saisk' it was as abundant as the common Sparrow; but I did not meet with it further north.

PYRRHULA MAJOR, Brehm.

The very handsome large variety of the Bullfinch with the brick-red breast was very abundant wherever the road passed through forests as far as Yen-e-saisk'; but I did not meet with it afterwards, either in the Arctic circle, or on the return journey.

CARPODACUS ERYTHRINUS (Pall.).

The Scarlet Bullfinch arrived on the Arctic circle on the 6th of June, and was soon afterwards very abundant. I did not observe it further north than lat. 68°. Its cheerful little song was constantly heard. It did not require a great stretch of imagination to fancy it said "pleased to see' you." I only shot one male without the scarlet on the breast. Baron Maydell got this bird in the Tschuski Land.

CORYTHUS ENUCLEATOR (Linn.).

We found the Pine-Grosbeak common in the forests on the Arctic circle in small parties on our arrival. When summer came they dispersed in the woods, and were very rarely seen. I did not observe them further north.

FRINGILLA MONTIFRINGILLA, Linn.

The Brambling arrived at our winter-quarters on the 1st of June. I did not observe it further north than 69°.

LINOTA LINARIA (Linn.).

LINOTA EXILIPES (Coues).

At Yen-e-saisk' we found large flocks of Redpoles in the first week in April; but they did not put in an appearance at the Koo-ray'-i-ka until the 28th of May. I obtained both these supposed species, and every possible intermediate form.

The young in first plumage (No. 943, shot in the valley of the Yen-e-say', in lat. 69°, on the 29th July) differs from the adult birds in having the edgings of the feathers of the plumage generally, but especially of the wing-coverts and innermost secondaries, greyish buff, instead of pure white. The feathers on the breast, flanks, and under tail-coverts have a dark streak in the centre.

My series of these birds comprises forty carefully selected skins, from Norway, the Petchora, and the Yen-e-say'. Twenty-two of these are males, and eighteen are females. Two skins, one of a male and the other of a female, both shot in April, show considerable remains of the buff colour on the head, back, wing-coverts, and inner secondaries, characteristic of the bird of the year. Other skins show traces of this buff colour on the head and back only.

These birds fly in such large flocks that one often gets a dozen or more at a shot. In selecting birds to skin I invariably chose all the birds showing red on the breast, rejecting a large proportion of those without red breasts; nevertheless only half the males in my collection show any red on the breast. So far as it goes, this fact supports the theory of Mr. Hancock, that the red breast is a sign of immaturity. My red-breasted birds vary considerably *inter se*. Four of

them have only a tint of rose-colour on the breast and rump. Three of these were shot in April, and one in June. They may be taken as types of the supposed species *L. exilipes*. All the feathers, but especially those on the rump, the wing-coverts, the inner secondaries, and the inner web of the outside tail-feathers, are broadly margined with white. There are scarcely any dark centres to the feathers on the rump, and none on the under tail-coverts; and the underparts are specially white. Two males, without the red breast, have the same characters, but are more abraded in plumage, and show less of the white margin to the feathers. A skin dated 12th July has the feathers so abraded that the white rump, and the white margins to the feathers generally, have almost disappeared; but the under tail-coverts are pure white. A skin dated 13th of June, from Norway, may be taken as full summer plumage of this form. The white margins to the tail-feathers are very conspicuous; but the red on the breast is more developed, and the mealy appearance of the bird has suffered from the abrasion of the feathers. Two females may possibly belong to this form, one of them having unstreaked under tail-coverts, and the other an unstreaked rump; but neither of them shows the broad margins to the tail-feathers. Another skin, dated the 7th of April, has the unstreaked rump, but streaked under tail-coverts. The breast is very carmine for the alledged species *L. exilipes*; and this skin also wants the broad white margins to the tail-feathers; but, as it shows a good deal of the immature buff-colour on the upper parts, it may be a bird which has retained other marks of immaturity.

Four skins with richly carmine breasts, and traces of carmine on the rump, all shot in June, are representative examples of *L. linaria* in breeding-plumage. They have all streaked rumps and under tail-coverts; but one of them has broad white edgings to the inner webs of the tail-feathers. In two other skins, one shot on the 28th of July and the other on the 2nd of August, the plumage is very abraded, and the carmine on the breast nearly lost. The remaining skins have no carmine on the breast. In all of these the

white edgings to the tail-feathers are narrow. They have all striped under tail-coverts ; and all but two have streaked rumps.

I am inclined to think that *L. exilipes* is the same species as *L. linaria*. I do not see that it is even a good variety. So far as I can make out, the differences are only those of age, sex, and season. If they must be separated, I think the colour of the under tail-coverts is a better character to go upon than that of the rump. Five birds, all males, have larger bills than the rest. Four of these have streaked rumps and under tail-coverts, the fifth is the slightly immature bird previously mentioned as having been shot on the 7th of April.

I found these birds common as far north as I went, *i. e.* lat. $71\frac{1}{2}^{\circ}$.

EMBERIZA PUSILLA, Pall.

The arrival of birds in the Arctic regions is dependent, to a large extent, upon the arrival of summer, which comes suddenly with the breaking up of the ice on the river, and the general melting of the snow. Last year, summer was unusually late in Northern Asia. On the Arctic circle, in the valley of the Yen-e-say', the ice on the river began to break up on the 1st of June, and migratory birds arrived in great numbers. On the 7th the Little Bunting arrived, in company with the Golden Plover and the Dark Thrush, nearly in the middle of the spring migration.

Before the snow, which was lying upon the ground to the depth of five or six feet up to the 1st of June, had sufficiently melted to make the forests penetrable, the Little Bunting was extremely abundant, and its unobtrusive song was constantly heard. On the 23rd of June I found the first nest. I was on the south bank of the Koo-ray'-i-ka, and was scrambling through the forest down the hill towards my boat, amongst tangled underwood and fallen tree-trunks, rotten and moss-grown, when a Little Bunting started up out of the grass at my feet. It did not fly away, but flitted from branch to branch within six feet of me. I knew at once that it must have a nest ; and in a quarter of a minute I found it, half

hidden in the grass and moss. It contained five eggs. The bird was still close to me; and I was obliged to leave the nest in order to get far enough from the bird, so as to avoid blowing it to pieces. It seemed a shame to shoot the poor little thing; but as the five eggs in the nest were the only authentic eggs of this species known to exist, it was absolutely necessary for their complete identification. The nest was nothing but a hole made in the dead leaves, moss, and grass, copiously and carefully lined with fine dead grass. The eggs were very handsome, almost exact miniatures of the eggs of the Corn-Bunting. The ground-colour is pale grey, with bold twisted blotches and irregular round spots of very dark grey, and equally large underlying shell-markings of paler grey. They measure $\frac{3\frac{1}{2}}{40} \times \frac{2\frac{2}{2}}{40}$ of an inch.

I took the second nest in the forest on the opposite bank of the Koo-ray'-i-ka on the 29th of June, containing three eggs. These eggs are somewhat less, measuring $\frac{2\frac{8}{8}}{40} \times \frac{2\frac{1}{1}}{40}$ of an inch. The colour is redder, being brown rather than grey, but the markings are similar. The nest was in a similar position, and the behaviour of the bird precisely the same. The third nest I took in lat. 67°, on the 30th of June. The eggs, five in number, were slightly incubated. The markings are similar to those of the eggs in the two preceding nests; but the ground-colour is browner, being less olive than in the first nest, and less red than in the second. The nest was lined with reindeer-hair. The fourth nest contained six eggs, and was taken a few miles to the north of the preceding, on the 6th of July. The eggs are intermediate in colour between those of the two nests last described. The character of the nest was similar to the last, but more sparingly lined with reindeer-hair. The tameness of the bird was the same in every instance.

The Little Bunting was common in the forest from the Arctic circle northwards, and afterwards on the tundra up to lat. 71°; but I did not observe it at Gol-cheek'-a, in lat. 71½°, nor upon the Brek'-off-sky islands. There are skins of this bird in the St.-Petersburg Museum, collected by Baron Maydell in the Tschuski Land.

EMBERIZA SCHÆNICLUS, Linn.

The Reed-Bunting arrived on the Arctic circle on the 13th of June, and soon became very common. As we proceeded north we lost sight of this bird before we had quite reached the limit of forest-growth; but I got a sitting of its eggs in lat. $70\frac{1}{2}^{\circ}$.

EMBERIZA POLARIS, Midd.

On the 9th of June, four days before the arrival of the Reed-Bunting, a smaller and darker-coloured Bunting appeared. It was very shy and skulking in its habits, and I only secured one specimen. I afterwards added a second to my collection. It appeared to be a comparatively rare and local bird. I did not find it anywhere except on the banks of the Koo-ray'-i-ka. I looked for it in vain on the other bank of the Yen-e-say', opposite the mouth of the Koo-ray'-i-ka, a locality where the Reed-Bunting was extremely abundant. The following measurements of a male, compared with a male of the common bird from the same locality, show that it is considerably smaller than the European Reed-Bunting, with a proportionately slightly longer tail. The figures are inches and decimals.

	<i>E. schœniclus.</i>	<i>E. polaris.</i>
Wing from carpal joint	3.25	2.83
Tail	2.7	2.5
Culmen	.43	.4
Tarsus	.75	.65

The distribution of colour in the two species is exactly the same, except that the margins of the feathers on the back, wing-coverts, and inner secondaries vary from rich chestnut to pale brown in the larger species, and from blue-grey to white in the smaller species. This is specially conspicuous on the wing-coverts near the carpal joint. On the smaller bird there is a trace of chestnut in the middle of the back and on the inner secondaries.

So far as I know, the male of this bird has never been described before; but I think there can scarcely be a doubt that it is the male of the bird described by Middendorff as *Emberiza*

polaris in his 'Sibirische Reise,' ii. p. 146. This bird was described from a female, obtained by Middendorff about three hundred miles to the north-east of the locality where I procured my bird. He represents it as differing from the female of *E. schæniclus* in almost precisely the same characters which I have pointed out above as distinguishing the two males.

EMBERIZA AUREOLA, Pall.

I shot this very handsome and conspicuous bird for the first time on the Arctic circle on the 9th of June, but only occasionally saw it afterwards. This must be nearly its northern limit. On the return journey I shot it again at Yen-e-saisk', in lat. 58°, in the middle of August, with scarcely fledged young. There are skins of this bird in the St.-Petersburg Museum, collected by Baron Maydell in the Tschuski Land.

EMBERIZA LEUCOCEPHALA, Gmel.

I shot one solitary bird of the Pine-Bunting on the Arctic circle on the 13th of June, but did not meet with it again.

EMBERIZA RUSTICA, Pall.

I did not meet with this bird until I reached lat. 62°, on my return journey.

PLECTROPHANES NIVALIS (Linn.).

In crossing the great steppes of South-western Siberia, between Tyu-main' and Tomsk, we frequently came upon small flocks of Snow-Buntings. These birds seem to have no settled winter home; but during the cold weather they apparently live a roving gipsy life, wandering about in flocks, perpetually migrating northwards as fast as the frost and snow will let them, but continually forced to beat a retreat with every return of wintry weather. As we passed through Yen-e-saisk' early in April, we were told that the Snow-Buntings had arrived just before us. When we reached the winter-quarters of the 'Thames,' on the 23rd of April, the sailors informed us that the Snow-Buntings had preceded us by a few days. Small flocks were constantly seen until the 7th of June. We saw no more of them until we reached Golcheek'-a, where we were in their breeding-grounds.

PLECTROPHANES LAPPONICUS (Linn.).

The Lapland Bunting did not arrive at the winter-quarters of the 'Thames' until the 4th of June. It was breeding in great numbers on the tundra as far north as we went, *i. e.* lat. $71\frac{1}{2}^{\circ}$.

†ALAUDA ARVENSIS, Linn.

The only Skylark I saw was one which I shot at our winter-quarters on the 11th of June.

OTOCORYS ALPESTRIS (Linn.).

The Shore-Lark was common on the Arctic circle from the 2nd to the 11th of June. After we had passed the limit of forest-growth, and had reached the tundra, it was again common as far north as we went.

ANTHUS GUSTAVI, Swinhoe.

Anthus gustavi, Swinhoe, P. Z. S. 1863, pp. 90, 273.

Anthus batchianensis, G. R. Gray, Hand-l. of Birds, i. p. 251. no. 3642 (1869).

Anthus seebohmi, Dresser, Birds of Eur. pt. xlv. (1875).

It is seldom that the history of an obscure bird is so suddenly and completely worked out as has been the case with this species during the last two years. The Siberian Pipit was first described by Swinhoe in 1863 (*loc. cit.*), from specimens obtained at Amoy, in South China, on migration. In 1871 (P. Z. S. p. 366) he announced its identity with *Anthus batchianensis*, based by G. R. Gray on skins collected by Wallace in Batchian. In 1874 (Ibis, p. 442) he announced the capture of no less than fourteen of these birds at Chefoo, during the spring migration, and mentions having seen one skin sent from Lake Baikal by Dr. Dybowsky. In 1875 Harvie Brown and I found it breeding in the valley of the Petchora, about lat. $67\frac{1}{2}^{\circ}$ (Ibis, 1876, p. 120). Our skins were submitted to Dresser, who, believing the species to be undescribed, included it as a new species in the 'Birds of Europe' as *Anthus seebohmi*. In 1876 Finsch and Brehm procured a specimen in the valley of the Obb, a little to the north of the Arctic circle (Ibis, 1877, p. 58). In the same number of 'The Ibis' I had the honour, I will not say the

pleasure, of pointing out the fact that *Anthus seebohmi* of Dresser was identical with *Anthus gustavi* of Swinhoe. Just before leaving for Siberia I was, by the kindness of Dr. Brüggemann, put in possession of the facts that *Anthus gustavi* had been procured in winter at Manilla (Brüggemann, Abhandl. Ver. Bremen, v. p. 67), Celebes (Brüggemann, *loc. cit.*; Walden, Tr. Z. S. viii. p. 117), Borneo, and Negros (*fide* skins in the British Museum).

During the arrival of migratory birds on the Arctic circle in the valley of the Yen-e-say', I naturally kept a sharp lookout for this interesting species, and was delighted on the 23rd of June to hear its peculiar and familiar song, and to shoot a fine male. On the 15th of July, in lat. $70\frac{1}{2}^{\circ}$, I met with this bird breeding, and obtained a sitting of its eggs. On the 26th of July, on my return journey, in about the same latitude, I found it breeding in considerable numbers, and secured eight specimens more.

In the Museum of St. Petersburg I had the pleasure of identifying skins of this species collected by Baron Maydell in the Tschuski Land, north of Kamtchatka, and on Behring Isle, to the east of that peninsula, collected by Wossnessensky; so that it would appear that the geographical distribution of this Pipit is almost the same as that of *Phylloscopus borealis*.

†ANTHUS CERVINUS, Pall.

The Red-throated Pipit was first seen on the banks of the Koo-ray'-i-ka on the 6th of June. One of the birds which I shot on that day was in winter plumage, with scarcely a trace of vinous on the throat; and I entered it in my journal as the sole example of *Anthus pratensis* which I met with in the valley of the Yen-e-say'; but in St. Petersburg Russow pointed out to me the difference between the plumage of *Anthus pratensis* and the winter plumage of *A. cervinus*. In the latter bird the central large under tail-covert has a dark streak up the middle near the shaft. I have examined the whole of my large series of these birds from Norway, Russia, and Siberia, and winter skins of *A. cervinus* from Asia Minor

and China, and find that in every case where the large under tail-covert has not been shot away this distinction holds good. This bird breeds in considerable numbers on the tundra as far north as we went. There is a great variation in the colours of the eggs in the same nest, some being much darker than others. There are skins of this bird in the Museum at St. Petersburg, collected by Baron Maydell in the Tschuski Land.

ANTHUS RICHARDI, Vieill.

Richard's Pipit must breed in great numbers on the extensive meadow-lands which stretch away for miles from Yen-e-saisk' on the banks of the river. I found it common there in the middle of August, and shot both adult birds in full moult and young in first plumage. This bird has a habit of hovering over the ground almost exactly like a Kestrel.

ANTHUS TRIVIALIS (Linn.).

I did not meet with the Tree-Pipit until I reached lat. 62° on my return journey.

+MOTACILLA ALBA, Linn.

Motacilla alba, Linn. Syst. Nat. i. p. 331 (1766).

Motacilla dukhunensis, Sykes, P. Z. S. 1832, p. 91.

Motacilla baicalensis, Swinhoe, P. Z. S. 1871, p. 363.

I think there can be no doubt that *M. alba* and *M. dukhunensis* are the same species. The only difference seems to be in the amount of white on the wing-coverts. *M. alba* has dark grey or black wing-coverts, more or less broadly edged with white. In *M. dukhunensis* the inside half of each wing-covert is the same as in *M. alba*; but the outside half is entirely white, making the wing-coverts, as they lie on the wing overlapping each other, an entirely white mass. This latter form seems to be confined to Siberia and India; but as in both these countries a complete series of intermediate forms occur also, we cannot consider the eastern form more than a variety. The amount of white on the wing-coverts of many of the species in this genus, and in some of them the amount of white on the secondaries, varies so much, that if we were to admit it as a specific cha-

racter we should at once more than double the number of supposed species.

In the valley of the Yen-e-say' both varieties were equally common. I only found the extreme white-winged form among the males.

This Wagtail was the first thin-billed bird to arrive on the Arctic circle in any numbers. The first break up of the ice on the 1st of June was the signal of its appearance. I found it as far north as we went, *i. e.* lat. $71\frac{1}{2}^{\circ}$.

The geographical distribution of this bird is very curious. As Middendorff did not find it, we may take the watershed between the Yen-e-say' and the Lay'-na as its eastern boundary, whence it extends westwards as far as the Atlantic on the continent of Europe, but only appears accidentally in the British Isles. As you ascend the Yen-e-say' from the Arctic circle, this bird abounds on the banks of the river until you near Yen-e-saisk' (about lat. 59°), when suddenly it disappears, and its place is taken by *M. personata*. From Yen-e-saisk' to Kras-no-yarsk', and westwards until you cross the meridian of Calcutta, *M. personata* abounds, after which, across Siberia and Europe, you find no white Wagtail but *M. alba*.

There appears, however, to be a colony of *M. alba* still further to the east. Middendorff had a skin sent him from Birjussa, about halfway between Yen-e-saisk' and Lake Baikal; and there is no doubt that it is a common bird in the neighbourhood of that lake, as skins collected in that locality by Dr. Dybowski are not rare in collections. From this colony these birds migrate in great numbers across Mongolia and the extreme west of China, and doubtless find their way thence to India.

MOTACILLA PERSONATA, Gould.

This is a very well-marked species, differing from *M. alba* in having the black on the breast confluent with the black on the neck. Well-marked examples show even more white on the wing-coverts than in the most marked *M. alba*, var. *dukhunensis*, whilst others are similar in this respect to typical

examples of the European form of *M. alba*—an additional proof that this character cannot be deemed specific in the Wagtails. I did not meet with this bird until my return journey. The particulars of its geographical distribution in Siberia, so far as I had an opportunity of observing it, are given under the head of *M. alba*.

+ *MOTACILLA OCULARIS*, Swinhoe.

Motacilla ocularis, Swinhoe, P. Z. S. 1863, p. 17. 275.

Motacilla alba, Linn., var. *lugens*, Ill. Midd. Sib. Reise, ii. p. 166 (1851, nec Ill. nec Temm.).

Motacilla baicalensis, var. *temporalis*, Swinhoe, P. Z. S. 1871, p. 363.

In the Museum at St. Petersburg I had an opportunity of examining several skins collected by Middendorff in North and East Siberia labelled *Motacilla lugens*. They all proved on examination to be *Motacilla ocularis*, a grey-backed pied Wagtail, with a black patch on the hind crown extending to the nape, and another on the throat and breast. It differs from *Motacilla alba* in having a narrow black line extending from the centre of the black patch on the head, and passing through the eyes to the base of the bill. In the same museum were skins of *M. ocularis* from the Amoor, collected by Schrenck, from Mongolia, collected by Przevalski, and from the Tschuski Land, collected by Maydell. I did not meet with this species on the Yen-e-say'; and probably the watershed between that river and the Lay'-na is its western boundary.

+ *MOTACILLA AMURENSIS*, sp. nov. (Plate IX.)

Motacilla alba, var. *lugens*, v. Schrenck, Amur-Lande, i. p. 338.

In the present condition of ornithological literature, loaded with synonyms, any one who adds a name to the almost exhaustless list is guilty of a crime; but where the species proves to have been undescribed before, his fellow ornithologists will admit that he has a right to plead "extenuating circumstances." I am afraid I shall be unable to complete my list of Siberian Wagtails without describing a skin in my

collection, obtained through Schlüter of Halle, dated 14th April, 1876, from the Gulf of Abrek, in the Sea of Japan, labelled *Motacilla ocularis* ♂. The head, neck, and back are black, gradually fading into grey on the rump, which becomes black again on the upper tail-coverts. The throat, breast, and a line through the eye are also black. Forehead and cheeks, and a line behind the eye and on the side of the neck, white. Shoulders grey. Wing-coverts white. Inner secondaries broadly edged with white on the outside web. Primaries and secondaries broadly edged with white near the base of the inner web.

This bird is undoubtedly the *Motacilla alba*, var. *lugens*, of Schrenck, who describes it as common in the Amoor, and considers it an intermediate form between *M. japonica* and *M. ocularis*. There seems to be no alternative but either to describe it as a new species, or to regard it as a hybrid between the two species just named. I have preferred the former course as the least evil of the two. From *M. ocularis* it may at once be distinguished by its black back, and from *M. japonica* by its grey secondaries.

In Dresser's collection is a skin of this bird from Japan, a male, collected by Whitely, 17th April, 1865; and I have a skin collected by Wossnessensky on the 23rd of April, 1845, upon "Oorogan Island," possibly either one of the Kurile or one of the Aleutian Isles.

MOTACILLA ALBOIDES, Hodgs.

Motacilla alboides, Hodgson, As. Res. xix. p. 191 (1836).

Motacilla leucopsis, Gould, P. Z. S. 1837, p. 78.

Motacilla luzoniensis, auctt. nec Scop.

Motacilla alba, var. *paradoxa*, Schrenck, Reis. u. Forsch. im Amur-Lande, i. p. 341 (1860).

Motacilla felix, Swinhoe, P. Z. S. 1870, p. 121.

There are five species of white Wagtails found in India. Two of these are resident species, *M. maderaspatana*, hereafter alluded to, and *M. hodgsoni*, which may be described as a black-backed *M. personata*. Of the remaining three we have already disposed of the breeding-places of two, *M. personata*.

and *M. alba*, or, as the Indian bird is generally called, *M. dukhunensis*. The remaining species, *M. luzoniensis*, inhabits the eastern plains of India in winter. Swinhoe has clearly pointed out (P. Z. S. 1870, p. 120) that this bird has no right to the name *luzoniensis*. Scopoli founds his name upon "La Bergeronette à collier de l'île de Luçon" of Sonnerat, in his 'Voyage à la Nouvelle Guinée,' vol. i. p. 61, pl. 29. Sonnerat describes the colour of the back as "gris de cendre," and figures a Wagtail with a grey back, very white wing-coverts, a white forehead, cheeks, and throat, but with a gorget of black on the breast confluent with the black on the neck and head. It might represent a female of *M. hodgsoni*, or a male of *M. personata* in winter plumage; but inasmuch as no white Wagtail has been recorded since from this locality, I think we are perfectly justified in cutting the Gordian knot by ignoring the name altogether.

M. alboides is in summer a black-backed Wagtail with a black breast. The forehead is white, and a white band separates the black on the head and neck from the black on the breast, as in *M. alba*; but besides the black back, it differs from *M. alba* in never having the throat black. In winter the back is more or less grey, but the shoulders remain black.

I think there can be no doubt whatever that this bird is the *Motacilla alba*, var. *paradoxa* of Schrenck, who figures it and describes it as breeding in the Amoor-land.

MOTACILLA LUGENS, Temm. et Schl.

Motacilla lugens, Temm. et Schl. Fauna Japonica, Aves, p. 60, pl. 25 (1850).

Motacilla japonica, Swinhoe, Ibis, 1863, p. 309; P. Z. S. 1863, p. 275.

After having just stated that the amount of white on the wing of a Wagtail cannot be considered a specific character, it may appear somewhat paradoxical to assert that the principal and most trustworthy character of this bird is the great amount of white on the wing. In this species, however, it is not only the wing-coverts, but the secondaries and some of

the primaries which are more or less white. *M. lugens* may always be recognized by some of the secondaries being white across both webs, and frequently one or two of them are pure white throughout. The amount of white on the primaries varies very much. In summer this species comes very near *M. maderaspatana*, having a black back, and the white on the head being confined to the forehead and supercilium. On the average *M. lugens* is a smaller bird than *M. maderaspatana*; but large skins of the former species measure more in length of wing than small skins of the latter species. In *M. maderaspatana* the black on the head comes down in a peak to the base of the bill. *M. lugens* has a pure white forehead, the black on the head not approaching within half an inch of the base of the bill. This appears, however, not to be a perfectly stable character, as I have a skin in my collection of the last-named species from Hakodate, in which the black of the forehead comes down in a peak to the base of the bill, as though a not very remote ancestor of this individual had migrated to India instead of China for the winter, and had there intermarried with one of his cousins, as our friends the Crows are in the habit of doing. In winter *M. lugens* comes very near to *M. ocularis*. Both species have then grey backs, black heads, a gorget of black on the throat, and a black line passing from the base of the bill through the eye, and joining the black at the back of the neck. *M. ocularis* is, however, a grey-backed Wagtail, both summer and winter, and has a grey shoulder; whereas *M. lugens* loses the black on the back in winter, but retains it on the shoulder the whole year. Independently of these minor differences, the amount of white on the primaries and secondaries of *M. lugens* serves to distinguish it easily at all seasons of the year.

The geographical distribution of this species, so far as I have been able to ascertain it, from the examination of well-authenticated skins, appears to range from Kamtchatka to Japan in summer, and in winter along the coast of China and the opposite islands, Formosa, &c. I can find no evidence of its having been found further west. The skins in Dresser's collection, collected by Severtzoff in Turkestan (Ibis, 1876,

p. 177), are *M. hodgsoni*. Middendorff's skins of *M. lugens* in the St.-Petersburg Museum are *M. ocularis*. In the same museum there is, however, a fine series of skins of the true *M. lugens* from Kamtchatka.

The synonymy of this bird, simple as it appears, is most bewildering. We have the authority of Mr. Hume ('Stray Feathers,' v. p. 434) for the assertion that, in the opinion of Professor Alfred Newton, "nomenclature bears the same relation to real natural history that rat-hunting does to real sport." Be this as it may, I do not know any one fonder of a "rat-hunt" of this kind than Professor Newton. In his article on the Pied Wagtail, in his new edition of Yarrell's 'British Birds,' we have an excellent *résumé* of a day's "rat-hunting." The first rat he starts is *Motacilla lugubris*, Pallas, and after running it through the fourth and third parts of Temminck's 'Manual of Ornithology,' he finally loses the scent in the first part in 1820 (ed. 2, p. 253). The description here given being that of a bird which, in Professor Newton's opinion, is "unquestionably identical" with the British Pied Wagtail, that bird becomes *M. lugubris*, Pallas, apud Temminck; and since there is no evidence that Pallas ever gave the name of *M. lugubris* to any Wagtail, our British bird becomes *M. lugubris*, Temminck. The next "rat" that Professor Newton starts is *M. lugens*, Illig. This, he tells us in a footnote (*loc. cit.*), he chased as far back as 1850, where he suddenly lost the scent in the 'Fauna Japonica.' I must confess that my attempts to run down this animal have been still less successful. I started it in Oustalet's 'Oiseaux de la Chine' (p. 300), where I was at once tripped up by two errors ("F. Jap. Aves, 25," should read "F. Jap. Aves, p. 60, pl. 25"; and "Swinh. (1860) 357," should read "Swinh. Ibis, 1860, p. 357"). I picked up the scent again in the P. Z. S. 1870, p. 130, and stumbled on two more errors ("P. Z. S. 1863, p. 17," ought to be "P. Z. S. 1863, p. 275," and "Ibis, 1863, p. 85," ought to be "Ibis, 1863, p. 309"). Recovering myself, I pursued the trail through Schrenck's 'Amur-Lande,' 1860, with only a slight mishap (the page in Pall. Zoogr. Rosso-Asiat. i. intended to be referred to is 507, not 307), and I

lost the scent altogether in Middendorff's 'Sibirische Reise,' p. 166 (1851). Since Professor Newton has not been able to kill this rat, as, I think, we may fairly infer from the footnote already referred to (Newton's 'Yarrell,' i. p. 541), I am driven to the conclusion that "*lugens*, Ill.," and "*lugubris*, Pall.," quoted by Middendorff, are both myths. My next attempt was to try and catch a *M. lugens* of Pallas, or of any body else. I had nearly as many stumbles in this as in the previous runs. In the 'Fauna Japonica' Schlegel gives a reference to Temminck's 'Manuel' as "part iii. p. 620," which ought to be read "part iv. p. 620," an error which I found he had previously made in his 'Rev. Crit. des Ois. d'Eur.' p. 68. In spite of these difficulties I did not lose the scent until 1832, where, so far as I have been able to trace it, *M. lugens*, Pallas, appears for the first time in Kittlitz's 'Kupfertafeln zur Naturgeschichte der Vögel,' p. 16, pl. 21. fig. 1, from Kamtchatka.

From this peninsula there is fortunately a series of skins in the St.-Petersburg Museum, which I had an opportunity of examining, and which I identified as *M. lugens* of Temm. & Schl. Kittlitz describes his bird as the commonest summer bird in Kamtchatka, and remarks that in autumn it has a white throat, bounded beneath by black, and an ash-grey back. The description is very meagre, and the plate of the bird in breeding-dress represents a state of plumage which I have not seen. The throat is in full summer plumage, *i. e.* black to the base of the bill, but the cheeks remain in winter plumage. A reference to the excellent plate of *M. lugens* in the 'Fauna Japonica' (pl. 25) will show that in full breeding-plumage the black on the throat extends up to, and forms one mass with, the black line through the eye.

We must admit that the description and also the plate of *M. lugens*, Pallas, apud Kittlitz, are scarcely as satisfactory as we could have wished upon which to found a species; but as the Japanese bird is the only Pied Wagtail hitherto found in Kamtchatka, there is at least a strong probability that Kittlitz's name refers to this bird. There is no evidence to prove that Pallas ever named a bird *M. lugens*. *M. lugens*,

Pallas, apud Temminck (Man. d'Orn. iv. p. 620), is identified with *M. lugubris* (Man. d'Orn. iii. p. 175), which undoubtedly includes the Japanese bird. Our bird therefore stands as *M. lugens*, probably of Pallas apud Kittlitz, partly of Pallas apud Temminck, certainly of Temminck and Schlegel. Since it only involves a change of authority and not of name, this seems to me to be a case in which we may safely avail ourselves of the strict letter of the rules of nomenclature, and call our bird *Motacilla lugens*, Temm. et Schl., on the ground that this name was "clearly defined" for the first time in the 'Fauna Japonica,'—rejecting also Swinhoe's name of *M. japonica*, as having been subsequently given, under the erroneous impression that the name *M. lugens* "had already been applied to the very different western species" (*vide* P. Z. S. 1870, p. 130).

It is somewhat remarkable that such an eventful day's "rat-hunting" should end without a kill, that of the three rats started (*M. lugubris*, Pall., *M. lugens*, Pall., and *M. lugens*, Illig.) every one should be run to earth, and that there is the strongest probability that all the three "rats" are phantom rats, myths. It is still more remarkable that the references to these names should be quoted with so many blunders; but perhaps the most remarkable circumstance of all is, that Professor Newton, in the note already twice referred to, should have "made another complication" by starting a fourth phantom rat, *M. lugens*, Illig. apud Schlegel*.

MOTACILLA FLAVA, Linn.

I shot a solitary example of the Blue-headed Wagtail with the white eye-stripe on the 11th June, on the Arctic circle. This bird had probably accidentally migrated with the large flocks of *M. viridis* beyond his usual latitude.

* Since the above was written, Professor Newton has pointed out to me that in all probability it was Bonaparte who first ascribed the name "*lugens*" to Illiger in 1850, the correctness of which statement Middendorff no doubt took for granted in 1851. Professor Newton desires to correct his footnote (Newton's 'Yarrell,' i. p. 541) as follows:—" . . . and the Japanese form therein appeared as '*M. lugens*,' a name ascribed by several writers, and amongst them Bonaparte (Consp. Av. i. p. 250), to Illiger; but whether . . ."

MOTACILLA VIRIDIS, Gmel.

The Grey-headed Wagtail arrived in flocks on the Arctic circle on the 5th of June, and soon became extremely abundant. It does not seem to extend its range beyond the limit of forest-growth, and disappeared about lat. 69°.

MOTACILLA CITREOLA, Pall.

This beautiful bird was the first of the yellow Wagtails to arrive at our winter-quarters. I secured the first example on the 4th of June, and afterwards found it very abundant on the tundra as far north as we went.

MOTACILLA MELANOPE (Pall.).

One solitary example of the Grey Wagtail fell to my gun on the 6th of June. As this is the first time that this bird has occurred within the Arctic circle, so far as I am aware, it may be looked upon as an accidental occurrence. I may remark that my bird, with a tail measuring 3·75 inches, is intermediate in form between the eastern and western varieties.

[To be continued.]

XXIV.—*Notes on a 'Catalogue of the Accipitres in the British Museum,' by R. Bowdler Sharpe (1874). By J. H. GURNEY.*

[Continued from p. 164.]

BEFORE referring to the genus *Helotarsus*, to which I shall next have occasion to advert, I am desirous of briefly noticing an additional specimen of *Circaëtus cinereus* which has recently been acquired by the Norwich Museum.

This example, which is from Abyssinia, agrees closely in coloration with that from Nubia described in my last paper (*antè*, p. 162, no. 18), and, like it, has no white bases to the feathers on the under surface.

Its principal measurements are :—Wing 22·2 inches, tarsus 3·9, middle toe *s. u.* 2·4, culmen 2·1.

I have already mentioned that I consider the genus *Helotarsus* to be an abnormal member of the *Circaëtine* group; and I am desirous of offering a few remarks upon it, as supplementary to those contained in Mr. Sharpe's volume.

